

**265749**

739/61.

COMMONWEALTH OF AUSTRALIA

PATENT SPECIFICATION

	Class	Int. Cl.
Application Number	739/61.	47.7; 47.3;
Lodged	25th January, 1961.	79.4.
Accompanied by Provisional Specification.		C03; C1 B44d.

Complete Specification**Entitled IMPROVEMENTS RELATING TO THE PLASTIC SURFACING
OF MATERIALS.**

Lodged 25th January, 1962.
Accepted Lapsed before Acceptance.
Published 25th July, 1963.

Convention Priority -**Applicant JOSEF HLUBUCEK and GERALD GOLDSMITH.****Actual Inventor JOSEF HLUBUCEK and GERALD GOLDSMITH.**

Related Art:	235,279(46,150/59)	47.7; 41.9; 47.3; 47.5.
	238,742(60,986/60)	47.7; 47.3; 51.6; 73.1
	66,997/60.	48.3; 69.4; 79.3.

The following statement is a full description of this invention, including the best method of performing it known to us :

This invention relates to the surfacing of materials with a plastic film or the like and has special reference to the surfacing of leather, although not confined thereto.

The invention has been devised to provide a method which can be readily performed whereby a durable plastic surfacing is laminated to different materials such as leather, fabrics, wood, metals and other materials, and a good clean protective covering formed on the processed materials which improves the appearance thereof, and is not liable to cracking or wrinkling and is resistant to moisture and the cost is reasonable. A further purpose of this invention is to give a patent leather finish to leather material providing a high gloss of durable form which allows flexible movement to this type of material and obviates the tendency to crack and break as in the known forms of patent leather and ensures a soft pliable finish which is waterproof. Other advantages will be apparent from the following description.

According to this invention the selected material which is to be surfaced with a plastic film is first cleaned of any impurities, and the surface to receive the plastic film rendered smooth and free from blemishes and other defects, and the plastic film being previously cleaned and said materials are coated in any appropriate manner with a water dispersion of a suitable adhesive such as synthetic rubber latex or other adhesive as later indicated herein, and while in the wet state the two treated surfaces are laminated together and allowed to dry under pressure.

In some cases after drying a final pressing or smoothing action may be applied together with a gentle heat.

Alternatively, a solvent based adhesive may be used, only one surface of the materials to be laminated may be coated, or both surfaces may be coated with different adhesives *

and in some cases the adhesive may be allowed to dry and lamination effected by heat.

The film may be plasticised P.V.C., polythene, polycarbonates, polythene film, rubber, nylon and other forms of plastic film.

The main group of adhesives suitable for use in the carrying out of this invention are mainly as follows:-

Polychlorobutadiene Latices

Butadiene-Acrylonitrile Latices

Butadiene Styrene Latices

Acrylic Co-Polymer Latices

Acrylic Polymers

Polyesters

Polyesters modified with isocyanate.

Polyurethane adhesives.

One of the main examples of the invention is the application of a shiny plastic film to leather, to produce a type of patent leather.

In this example the leather skin is first prepared by buffing or made smooth so that the surface is more uniform.

The P.V.C. film is cleaned with methylated spirits or other suitable solvents which will not affect it. Said P.V.C. film is then coated by spraying or roller-coating with Acrylic CoPolymers Latice, and while in a wet state the leather is placed onto the film in such a manner that no air is trapped and no bubbles are formed. This is further obviated by passing the "sandwich" through a mangle or other suitable means of making proper full contact between the leather fibres and the adhesive coated P.V.C. film. The coated skin is then dried in a temperature of not less than 90 degrees F. and not exceeding 110 degrees F., for approximately

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eight hours, after which it is trimmed, cleaned and measured. After drying the material may be ironed from the leather side at approximately 120 degrees F, to obtain a more leather-like finish, which through the applied pressure follows the fibre structure of the skin.

In the case of laminating the plastic film to a more or less rigid material, the ironing is effected from the film side with a suitable protective sheet or the like interposed.

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The claims defining the invention are as follows :-

1. A method of surfacing materials with a plastic film or the like wherein the selected material which is to be surfaced with the plastic film is first cleaned of any impurities, and the surface to receive the plastic film rendered smooth and free from blemishes and other defects, and the plastic film being previously cleaned and said material are coated in any appropriate manner with a water dispersion of a suitable adhesive such as synthetic rubber latex or other suitable adhesive, and while in the wet state the two treated surfaces are laminated together and allowed to dry under pressure.

(25th January, 1961.)

2. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein the surfaced material after drying is subjected to a final pressing or smoothing action together with a gentle heat. (25th January, 1961).

3. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein one surface of the materials to be laminated is coated with an adhesive.

(25th January, 1961.)

4. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein both surfaces of the materials to be laminated are coated with different adhesives.

(25th January, 1961.)

5. A method of surfacing materials with a plastic film according to Claim 1, wherein the film is of plasticised P.V.C. polyethylene, polycarbonate, polythene, rubber, nylon or other suitable form of plastic film. (25th January, 1961.)

6. A method of surfacing leather with plastic film to produce a type of patent leather, wherein the leather skin is first buffed or otherwise made smooth, and the film of shiny P.V.C. being first cleaned with methylated spirits or other

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suitable solvents which are not detrimental thereto, is then coated by spraying or roller coating with Acrylic Co.-Polymers Latex and while in the wet state the leather placed onto the said film in a manner whereby no air is trapped or bubbles formed, and pressed together to ensure proper contact between the leather fibres and the adhesive coated P.V.C. film.

(25th January, 1961.)

7. A method of surfacing leather with a plastic film according to Claim 6, wherein the leather after being placed on the film is passed through a mangle or other suitable pressure means to effect the complete contact of the materials.

(25th January, 1961.)

8. A method of surfacing leather with a plastic film according to Claims 6 or 7 wherein the surfaced skin is dried at a temperature ranging between 90 to 110 degrees F. for about eight hours, after which it may be trimmed, cleaned and measured. (25th January, 1961.)

9. A method of surfacing leather with a plastic film according to Claims 6 or 8, wherein the material after drying is ironed from the leather side at about 120 degrees F. for the purpose hereinbefore described. (25th January, 1961.)

10. A method of surfacing materials with a plastic film according to Claim 8 wherein the material being of a more or less rigid nature has the ironing effected from the film side with a suitable protective sheet or the like interposed.

(25th January, 1961.)

DATED this 24th day of January, 1962.

JOSEF HLUBACEK, and
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By their Patent Attorney.
Chas. Burnes.

The claims defining the invention are as follows :-

1. A method of surfacing materials with a plastic film or the like wherein the selected material which is to be surfaced with the plastic film is first cleaned of any impurities, and the surface to receive the plastic film rendered smooth and free from blemishes and other defects, and the plastic film being previously cleaned and said material are coated in any appropriate manner with a water dispersion of a suitable adhesive such as synthetic rubber latex or other suitable adhesive, and while in the wet state the two treated surfaces are laminated together and allowed to dry under pressure.

(25th January, 1961.)

2. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein the surfaced material after drying is subjected to a final pressing or smoothing action together with a gentle heat. (25th January, 1961).

3. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein one surface of the materials to be laminated is coated with an adhesive.

(25th January, 1961.)

4. A method of surfacing materials with a plastic film or the like according to Claim 1, wherein both surfaces of the materials to be laminated are coated with different adhesives.

(25th January, 1961.)

5. A method of surfacing materials with a plastic film according to Claim 1, wherein the film is of plasticised P.V.C. polyethylene, polycarbonate, polythene, rubber, nylon or other suitable form of plastic film. (25th January, 1961.)

6. A method of surfacing leather with plastic film to produce a type of patent leather, wherein the leather skin is first buffed or otherwise made smooth, and the film of shiny P.V.C. being first cleaned with methylated spirits or other